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EXAMINER	
KOENIG, ANDREW Y	
ART UNIT	**PAPER NUMBER**
2611	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/492,561	CRINON, REGIS J.	
	Examiner	Art Unit	
	Andrew Y. Koenig	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 October 2005 and 03 October 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28 and 31-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-28 and 31-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *03 October 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 03 October 2005 have been fully considered but they are not persuasive.

The applicant argues Srinivasan discloses encoding metadata with the corresponding PTS from the portion of the video stream to which the metadata relates. Thus, the combined system would not be based upon a delay in a packetization process for the metadata because the delay (PTS) would have been calculated and stamped prior to the delay in the packetization process. The examiner disagrees; Srinivasan sends metadata using the PTS (see discussion above: Srinivasan: col. 3, ll. 41-52, col. 4, ll. 12-16) as discussed by the applicant, wherein the metadata is sent to a broadcaster, such as shown in figure 7. In analogous art, Kim teaches adding an offset corresponding to the interval between a coding start time point in the encoder and a time point that a stamp is coded in the transport stream (col. 4, ll. 17-24), thereby adding an offset to the PTS of Srinivasan. Consequently, the combination of Maturi, Kim, and Srinivasan teach the combined system would be based upon a delay in a packetization process for the metadata because the delay (PTS). Further, the examiner notes that Srinivasan recognizes that the multiplexer may compensate at the multiplexer by amending the presentation time stamps of more streams (col. 4, ll. 50-54, col. 37-38, ll. 58-24).

In addition, the applicant argues that non of the cited references disclose "said packetization process packetizing data apart from video and audio in a first data stream

and including a second data stream, independent of said first data stream, containing said sample application time moment." The examiner disagrees; Srinivasan teaches separate streams from the video and data portions (col. 13, ll. 41-58), which equates to packetizing data apart from video and audio in a first data stream, in that using MPEG, the data is assigned to any of video, audio, or data packets, wherein Srinivasan uses the data portion of MPEG. Since Srinivasan teaches a data MPEG packet, Srinivasan teaches streams independent (during transmission) from the first data stream (col. 13, ll. 41-58), containing timing information to coordinate the display of event to the video.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-28 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter, in that independent claims 1, 2, 6, 12, 18, 27, and 28 each fail to recite a limitation directed to a practical application.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-17, 27, 28, and 31-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,559,999 to Maturi et al. (Maturi) in view of U.S. Patent 5,521,927 to Kim et al. (Kim) and U.S. Patent 6,357,042 to Srinivasan et al. (Srinivasan).

Regarding claim 1, Maturi teaches instigating an event such as synchronizing the audio with the video (Abstract). Maturi teaches a system time clock (STC) located and provided in the decoder, a system clock reference (SCR) as used in MPEG-I or Program Clock Reference (PCR) as used in MPEG-II which is the clock reference given by the encoder (col. 2, ll. 14-22). Along with the time clocks, Maturi teaches a Presentation Time Stamp (PTS) which indicates the proper presentation of data (col. 1, ll. 62-65). Maturi teaches an audio/video decoder as shown in figure 1, which generates a reconstructed application includes time to initiate the event (col. 7, ll. 28-36). The time to initiate the event (claimed application time moment) is a function of STC (claimed current moment of a system time), a PTS (claimed sampled application time moment), and decoding time stamp (DTS) which is associated with a sampled moment of a system time associated with sample application time moment. Further, Maturi teaches performing the action once the time is less than one frame time interval different (col. 7, ll. 37-40).

Maturi teaches an application time moment as a function of STC, however, Maturi is silent on the moment being based in part upon a delay in the packetization process. In analogous art, Kim teaches adding an offset corresponding to the interval between a coding start time point in the encoder and a time point that a stamp is coded

in the transport stream (col. 4, ll. 17-24), which reads on a delay in the packetization process. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Maturi by using an offset based in part upon a delay in the packetization process as taught by Kim in order to enable precise synchronization among streams.

Maturi and Kim teach providing an application time moment as a function of STC and moment being based in part upon a delay in the packetization process, but are silent on said packetization process packetizing data apart from the video and audio in a first data stream, and including a second stream independent of said first stream, containing a moment of the event. Srinivasan recognizes that the multiplexer may compensate at the multiplexer by amending the presentation time stamps of more streams (col. 4, ll. 50-54, col. 37-38, ll. 58-24) and teaches separate streams from the video and data portions (col. 13, ll. 41-58), which equates to packetization process packetizing data apart from the video and audio in a first data stream, in that using MPEG, the data is assigned to any of video, audio, or data packets, wherein Srinivasan uses the data portion of MPEG. Further, Srinivasan teaches a data MPEG packet, Srinivasan teaches streams independent (during transmission) from the first data stream (col. 13, ll. 41-58), containing timing information to coordinate the display of event to the video, which equates to including a second stream independent of said first stream, containing a moment.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Maturi and Kim by a packetization process

packetizing data apart from the video and audio in a first data stream, and including a second stream independent of said first stream, containing a moment of the event as taught by Srinivasan in order to coordinate the display of events in conjunction with the display of audio and video information, thereby enhancing the user's experience.

Maturi teaches the events being audio and video, but is silent on an event apart from reconstructing video and audio. In analogous art, Srinivasan teaches integrating an event, such as host spots and interactive regions (col. 37, ll. 3-6) in order to present metadata during a frame or series of frames (col. 37, ll. 35-41). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Maturi by synchronizing events another than audio and video as taught by Srinivasan in order to enhance the main video stream an incorporating metadata thereby increasing interactivity and enabling the user to select and review portions of video presentations (Srinivasan: col. 3, ll. 8-23, col. 3, ll. 42-52).

Regarding claim 2, Maturi teaches instigating an event such as synchronizing the audio with the video (Abstract). Maturi teaches a system time clock (STC) located and provided in the decoder, a system clock reference (SCR) as used in MPEG-I or Program Clock Reference (PCR) as used in MPEG-II which is the clock reference given by the encoder (col. 2, ll. 14-22). Along with the time clocks, Maturi teaches a Presentation Time Stamp (PTS) which indicates the proper presentation of data (col. 1, ll. 62-65). Maturi teaches an audio/video decoder as shown in figure 1, which generates a reconstructed application includes time to initiate the event (col. 7, ll. 28-36). The time to initiate the event (claimed application time moment) is a function of STC (claimed

current moment of a system time), a PTS (claimed sampled application time moment), and decoding time stamp (DTS) which is associated with a sampled moment of a system time associated with sample application time moment. Maturi teaches associating the event and instant with a correlating application time, where the instant is less than one frame time interval different (col. 7, ll. 37-40) and application time is correlated with a presentation moment of system time as discussed above. Maturi teaches performing the action once the time is less than one frame time interval different (col. 7, ll. 37-40).

Maturi teaches an application time moment as a function of STC, however, Maturi is silent on the moment being based in part upon a delay in the packetization process. In analogous art, Kim teaches adding an offset corresponding to the interval between a coding start time point in the encoder and a time point that a stamp is coded in the transport stream (col. 4, ll. 17-24), which reads on a delay in the packetization process. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Maturi by using an offset based in part upon a delay in the packetization process as taught by Kim in order to enable precise synchronization among streams.

Maturi and Kim teach providing an application time moment as a function of STC and moment being based in part upon a delay in the packetization process, but are silent on said packetization process packetizing data apart from the video and audio in a first data stream, and including a second stream independent of said first stream, containing a moment of the event. Srinivasan recognizes that the multiplexer may

compensate at the multiplexer by amending the presentation time stamps of more streams (col. 4, ll. 50-54, col. 37-38, ll. 58-24) and teaches separate streams from the video and data portions (col. 13, ll. 41-58), which equates to packetization process packetizing data apart from the video and audio in a first data stream, in that using MPEG, the data is assigned to any of video, audio, or data packets, wherein Srinivasan uses the data portion of MPEG. Further, Srinivasan teaches a data MPEG packet, Srinivasan teaches streams independent (during transmission) from the first data stream (col. 13, ll. 41-58), containing timing information to coordinate the display of event to the video, which equates to including a second stream independent of said first stream, containing a moment.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Maturi and Kim by a packetization process packetizing data apart from the video and audio in a first data stream, and including a second stream independent of said first stream, containing a moment of the event as taught by Srinivasan in order to coordinate the display of events in conjunction with the display of audio and video information, thereby enhancing the user's experience.

Regarding claim 3, Maturi teaches a Decoding Time Stamp (DTS) which incorporating a sample moment of the application time in a data unit to be presented at the presentation moment approximately corresponding to sample moment of the system time by taking the difference of the fixed decoding time from the PTS (col. 7, ll. 34-36).

Regarding claim 4, Maturi teaches incorporating the instant at approximately said correlating time, where the data unit is to be presented at the presentation moment (col. 7, ll. 34-40).

Regarding claim 5, Maturi teaches presenting the event at the presentation moment at the instant of the presentation moment, when the instant is less than one frame interval different (col. 7, ll. 40-37).

Regarding claim 6, Maturi teaches synchronizing the audio (claimed event) to the video elements (col. 3, ll. 25-30). Maturi teaches associating a Presentation Time Stamp (PTS) with a System Clock Reference (SCR) or a Program Clock Reference (PCR) (col. 2, ll. 13-21), which equates to associating a sample application time moment with a sample system time moment. Further, Maturi teaches using the PTS and SCR/PCR to synchronize the reconstructed local clock, which is the System Time Clock (STC), which as taught by Maturi manages both the audio and video and consequently reads on both the claimed application and system clock (col. 2, ll. 13-21, col. 3, ll. 21-24). Maturi teaches associating the audio (claimed event) and video (claimed instant of said program element) with a PTS (col. 7, ll. 22-27). Maturi teaches relating the application time and presentation moment by creating a Decoder Time Stamp (DTS), which is the PTS minus a fixed decoding time (col. 7, ll. 34-36). Maturi teaches instigating the audio at a time moment generated by the STC corresponding to the DTS (col. 7, ll. 34-45).

Maturi teaches an application time moment as a function of STC, however, Maturi is silent on the moment being based in part upon a delay in the packetization

process. In analogous art, Kim teaches adding an offset corresponding to the interval between a coding start time point in the encoder and a time point that a stamp is coded in the transport stream (col. 4, ll. 17-24), which reads on a delay in the packetization process. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Maturi by using an offset based in part upon a delay in the packetization process as taught by Kim in order to enable precise synchronization among streams.

Maturi and Kim teach providing an application time moment as a function of STC and moment being based in part upon a delay in the packetization process, but are silent on said packetization process packetizing data apart from the video and audio in a first data stream, and including a second stream independent of said first stream, containing a moment of the event. Srinivasan recognizes that the multiplexer may compensate at the multiplexer by amending the presentation time stamps of more streams (col. 4, ll. 50-54, col. 37-38, ll. 58-24) and teaches separate streams from the video and data portions (col. 13, ll. 41-58), which equates to packetization process packetizing data apart from the video and audio in a first data stream, in that using MPEG, the data is assigned to any of video, audio, or data packets, wherein Srinivasan uses the data portion of MPEG. Further, Srinivasan teaches a data MPEG packet, Srinivasan teaches streams independent (during transmission) from the first data stream (col. 13, ll. 41-58), containing timing information to coordinate the display of event to the video, which equates to including a second stream independent of said first stream, containing a moment.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Maturi and Kim by a packetization process packetizing data apart from the video and audio in a first data stream, and including a second stream independent of said first stream, containing a moment of the event as taught by Srinivasan in order to coordinate the display of events in conjunction with the display of audio and video information, thereby enhancing the user's experience.

Regarding claim 7, the system of Maturi uses the same STC for the application time clock and system time clock, accordingly, the sample application time moment is in the same data unit and is presented at the sample system time.

Regarding claim 8, Maturi teaches selecting a moment from an application timeline generated by an application clock, where the audio PTS is sent downstream in the program stream (col. 5, ll. 3-10). As discussed in claim 6, Maturi teaches accounting for the time it takes to shift decode the audio and provides a DTS and consequently incorporates this difference in order to timestamp the PTS for the proper synchronization (col. 7, ll. 34-40).

Regarding claim 9, Maturi teaches comparing the STC (claimed current time moment) to the PCR/SCR time moment in order to synchronize the overall system clocks at the encoder and decoder (col. 7, ll. 22-27). As discussed in claim 7, clearly the application clock and STC are set equal to each other at all times, which reads on when said current system time moment corresponds to said same system time moment.

Regarding claim 10, Maturi teaches creating a DTS, which is the PTS minus a fixed decoding time, which permits the audio to be synchronized to the video to within a frame (col. 7, ll. 34-40).

Regarding claim 11, Maturi teaches presenting the data within a frame of the video (col. 7, ll. 34-40), which reads on said instant at said presentation moment of said system time.

Regarding claim 12, the limitations of claim 12 have been addressed in the discussion of claim 6, and the claim 12 adds the limitations of a second data unit, which is also taught by Maturi. Maturi teaches that PTS and access units are carried in different layers of the hierarchy and are not necessary sent together. Consequently, Maturi teaches transmitting access units to the receiver in a second data unit having a second presentation moment of system time associated with said correlating moment of the application time (col. 1-2, ll. 66-4, col. 2, ll. 22-35).

Regarding claim 13, the limitations of claim 13 have been addressed in the discussion of claims 6, 7, and 12.

Regarding claim 14, Maturi teaches comparing the STC (claimed current time moment) to the PCR/SCR time moment in order to synchronize the overall system clocks at the encoder and decoder (col. 7, ll. 22-27). As discussed in claim 7, clearly the application clock and STC are set equal to each other at all times, which reads on when said current system time moment corresponds to said same system time moment.

Regarding claim 15, Maturi teaches encoding the PTS, for indicating the presentation time, where the PTS is the time stamp associated with an access unit, which is all sent to the receiver (col. 1-2, ll. 66-4).

Regarding claim 16, in the system of Maturi, video and audio data is constantly streaming downstream to the receiver; accordingly Maturi teaches receiving a third data unit and transmitting the third data unit to the receiver in a similar fashion as described for the second data unit.

Regarding claim 17, as discussed above with the relationship between access units and PTS, a third data unit can have a temporal relation to the first data unit presentation unit.

Regarding claim 27, Maturi teaches generating a system and application time (see discussion of claim 9) and selecting a PTS (claimed sample moment of the application time) at the encoder (col. 1, ll. 62-65) and sending the data downstream to the user in a first data unit (col. 1-2, ll. 66-4). Further, Maturi teaches generating a DTS, synchronized to the system time by the sample moment and first data unit presentation moment (col. 7, ll. 34-37), further the examiner notes that by determining the DTS, the DTS is associated with the audio even and said instant of said video with a correlating moment of said application time, such as DTS = PTS – fixed decoding time; Maturi teaches presenting the system time in order to play the audio event synchronized with the video (col. 7, ll. 22-40). In addition, fig 3 has a pre-parser 22 and a post-parser 24.

Maturi teaches an application time moment as a function of STC, however, Maturi is silent on the moment being based in part upon a delay in the packetization

process. In analogous art, Kim teaches adding an offset corresponding to the interval between a coding start time point in the encoder and a time point that a stamp is coded in the transport stream (col. 4, ll. 17-24), which reads on a delay in the packetization process. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Maturi by using an offset based in part upon a delay in the packetization process as taught by Kim in order to enable precise synchronization among streams.

Maturi and Kim teach providing an application time moment as a function of STC and moment being based in part upon a delay in the packetization process, but are silent on said packetization process packetizing data apart from the video and audio in a first data stream, and including a second stream independent of said first stream, containing a moment of the event. Srinivasan recognizes that the multiplexer may compensate at the multiplexer by amending the presentation time stamps of more streams (col. 4, ll. 50-54, col. 37-38, ll. 58-24) and teaches separate streams from the video and data portions (col. 13, ll. 41-58), which equates to packetization process packetizing data apart from the video and audio in a first data stream, in that using MPEG, the data is assigned to any of video, audio, or data packets, wherein Srinivasan uses the data portion of MPEG. Further, Srinivasan teaches a data MPEG packet, Srinivasan teaches streams independent (during transmission) from the first data stream (col. 13, ll. 41-58), containing timing information to coordinate the display of event to the video, which equates to including a second stream independent of said first stream, containing a moment.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Maturi and Kim by a packetization process packetizing data apart from the video and audio in a first data stream, and including a second stream independent of said first stream, containing a moment of the event as taught by Srinivasan in order to coordinate the display of events in conjunction with the display of audio and video information, thereby enhancing the user's experience.

Regarding claim 28, Maturi teaches a clock to reconstruct the event as shown in fig. 10, 11, see also the discussion of claim 27.

Regarding claim 31, Maturi teaches the SCR and PCD (col. 3, ll. 31-35) as a system time. Maturi teaches the clock as a counter (col. 7, ll. 22-27). Maturi teaches the STC derived from SCR or PCR (col. 3, ll. 31-43), which is divided to reduce the resolution. Maturi teaches a comparator (fig. 10, label 42, fig. 11, label 42), and the pre-parser (22) and post-parser (24) clearly have registers in order to process the audio decoding in less than one frame time interval different from the counter (col. 7, ll. 37-40). As described previously in the rejection, there exist PTS and presentation units (PU) which are not necessarily sent together, which equate to the first, second, and third data unit presentation moments (col. 1-2, ll. 66-4), which are clearly depacketized in order to retrieve the data. The system of Maturi provides the time recovery unit and the presentation units (fig. 3).

Maturi teaches an application time moment as a function of STC, however, Maturi is silent on the moment being based in part upon a delay in the packetization process. In analogous art, Kim teaches adding an offset corresponding to the interval

between a coding start time point in the encoder and a time point that a stamp is coded in the transport stream (col. 4, ll. 17-24), which reads on a delay in the packetization process. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Maturi by using an offset based in part upon a delay in the packetization process as taught by Kim in order to enable precise synchronization among streams.

Maturi and Kim teach providing an application time moment as a function of STC and moment being based in part upon a delay in the packetization process, but are silent on said packetization process packetizing data apart from the video and audio in a first data stream, and including a second stream independent of said first stream, containing a moment of the event. Srinivasan recognizes that the multiplexer may compensate at the multiplexer by amending the presentation time stamps of more streams (col. 4, ll. 50-54, col. 37-38, ll. 58-24) and teaches separate streams from the video and data portions (col. 13, ll. 41-58), which equates to packetization process packetizing data apart from the video and audio in a first data stream, in that using MPEG, the data is assigned to any of video, audio, or data packets, wherein Srinivasan uses the data portion of MPEG. Further, Srinivasan teaches a data MPEG packet, Srinivasan teaches streams independent (during transmission) from the first data stream (col. 13, ll. 41-58), containing timing information to coordinate the display of event to the video, which equates to including a second stream independent of said first stream, containing a moment.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Maturi and Kim by a packetization process packetizing data apart from the video and audio in a first data stream, and including a second stream independent of said first stream, containing a moment of the event as taught by Srinivasan in order to coordinate the display of events in conjunction with the display of audio and video information, thereby enhancing the user's experience.

Maturi teaches the events being audio and video, but is silent on an event apart from reconstructing video and audio. In analogous art, Srinivasan teaches integrating an event, such as host spots and interactive regions (col. 37, ll. 3-6) in order to present metadata during a frame or series of frames (col. 37, ll. 35-41). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Maturi by synchronizing events another than audio and video as taught by Srinivasan in order to enhance the main video stream an incorporating metadata thereby increasing interactivity and enabling the user to select and review portions of video presentations (Srinivasan: col. 3, ll. 8-23, col. 3, ll. 42-52).

Regarding claim 32, the combination of Maturi and Srinivasan teaches a descriptor of an event.

Regarding claim 33, Maturi teaches receiving a payload of the data unit comprising application time sample, which is clearly generated via the encoder and is sent downstream (col. 1, ll. 45-54). Maturi is silent on a data server. Official Notice is taken that a data server constructing payloads is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was

made to modify Maturi by implementing a data server in order to create the data that is sent downstream thereby providing the proper PTS information to properly synchronize events with the video. Further, Maturi teaches a multiplexer adding a heading comprising said second data unit presentation time (col. 1-2, ll. 66-4, col. 2, ll. 55-59, col. 4, ll. 40-47).

5. Claims 18-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,559,999 to Maturi et al. (Maturi) in view of U.S. Patent 6,357,042 to Srinivasan et al. (Srinivasan).

Regarding claim 18, Maturi teaches generating a system and application time (see discussion of claim 9) and selecting a PTS (claimed sample moment of the application time) at the encoder (col. 1, ll. 62-65) and sending the data downstream to the user in a first data unit (col. 1-2, ll. 66-4). Further, Maturi teaches generating a DTS, synchronized to the system time by the sample moment and first data unit presentation moment (col. 7, ll. 34-37), further the examiner notes that by determining the DTS, the DTS is associated with the audio even and said instant of said video with a correlating moment of said application time, such as DTS = PTS – fixed decoding time; Maturi teaches presenting the system time in order to play the audio event synchronized with the video (col. 7, ll. 22-40).

Maturi teaches the events being audio and video, but is silent on an event apart from reconstructing video and audio. In analogous art, Srinivasan teaches integrating an event, such as host spots and interactive regions (col. 37, ll. 3-6) in order to present

metadata during a frame or series of frames (col. 37, ll. 35-41). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Maturi by synchronizing events another than audio and video as taught by Srinivasan in order to enhance the main video stream an incorporating metadata thereby increasing interactivity and enabling the user to select and review portions of video presentations (Srinivasan: col. 3, ll. 8-23, col. 3, ll. 42-52).

Maturi teach providing an application time moment as a function of STC, but is silent on associating an event with a second data unit, wherein said first and second data units are generated in separate streams. Srinivasan recognizes that the multiplexer may compensate at the multiplexer by amending the presentation time stamps of more streams (col. 4, ll. 50-54, col. 37-38, ll. 58-24) and teaches separate streams from the video and data portions (col. 13, ll. 41-58). Further, Srinivasan teaches a data MPEG packet, Srinivasan teaches streams independent (during transmission) from the first data stream (col. 13, ll. 41-58), containing timing information to coordinate the display of event to the video, which equates associating an event with a second data unit, wherein said first and second data units are generated in separate streams

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Maturi by associating an event with a second data unit, wherein said first and second data units are generated in separate streams as taught by Srinivasan in order to coordinate the display of events in conjunction with the display of audio and video information, thereby enhancing the user's experience.

Regarding claim 19, the limitations of claim 19 have been addressed in the discussion of claim 14; claim 19 further adds the limitation of incrementing the reconstructed application time. Maturi teaches a STC which is incremented at 90 kHz (col. 7, ll. 22-27).

Regarding claims 20, Maturi teaches the SCR and PCD (col. 3, ll. 31-35) as a system time signal having a system time unit frequency. Maturi is silent on dividing the signal to produce a trigger signal having an application time unit frequency, while teaching the application time frequency, STC (col. 21-24). Official Notice is taken that dividing a clock is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Maturi to divide the clock in order to derive another lower resolution clock in order to synchronize playback thereby creating a more robust system. Maturi teaches the clock as a counter (col. 7, ll. 22-27).

Regarding claim 21, Maturi teaches a DTS, which is adjusted for a period required to create, said first data unit (col. 7, ll. 34-36).

Regarding claim 22, in the system of Maturi, video and audio data is constantly streaming downstream to the receiver; accordingly Maturi teaches receiving a second data unit and timestamping the second data unit to the receiver in a similar fashion as described for the first data unit.

Regarding claim 23, in the system of Maturi, video and audio data is constantly streaming downstream to the receiver; accordingly Maturi correlating a second data unit

and transmitting the second data unit to the receiver in a similar fashion as described for the first data unit.

Regarding claim 24, clearly in a streaming system, the data unit is transmitted to the receiver prior to said reconstructed application time corresponding to said correlating moment in order to properly process the audio (col. 7, ll. 37-53).

Regarding claims 25 and 26, Maturi teaches continuously streaming audio and video, wherein the system has a temporal relationship to the first data unit presentation moment in order to re-create audio and video in the proper sequence.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Y. Koenig whose telephone number is (571) 272-7296. The examiner can normally be reached on M-Th (7:30 - 6:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Grant can be reached on (571) 272-7294. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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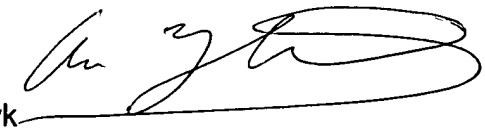

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